APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,591	06/27/2003	Mark Ronald Plesko	3382-64706	5996

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EXAMINER
PHAM, CHRYSTINE

ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/607,591	PLESKO ET AL.
	Examiner	Art Unit	
	Chrystine Pham	2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on <u>27 June 2003</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 June 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date 7-26/04; 10/14/05; 12/21/05

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This action is responsive to application 10/607591 filed on June 27, 2003. Claims 1-29

are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Franz et al.

(US 7117488 B1, "Franz").

Claim 1

Franz teaches a method of type-checking a code segment written in a programming

language (see at least FIG.3 & associated text) comprising:

translating the code segment from the programming language to one or more

representations of an intermediate language (see at least *310-350* FIG.3 & associated

text; col.6:48-67); and

type-checking the one or more representations based on a rule set, wherein the rule set

comprises rules for type-checking a type that indicates an element of the representation

can be one of a plurality of types (see at least *710, 720, 730* FIG.7 & associated text;

820 FIG.8 & associated text; *type safe, type rules* col.1:45-2:3).

Claim 2

The rejection of base claim 1 is incorporated. Franz further teaches wherein the type

that indicates an element of the representation can be one of a plurality of types is an

unknown type (see at least *unsafe intermediate code* col.2:29-55).

Claim 3

The rejection of base claim 1 is incorporated. Franz further teaches wherein the rule set

is selected from a plurality of rule sets (see at least *type safe, type rules* col.1:45-2:3).

Claim 4

The rejection of base claim 3 is incorporated. Franz further teaches wherein only a

fraction of the rule sets contain rules for type-checking a type that indicates an element

of the representation can be one of a plurality of types (see at least *730* FIG.7 &

associated text).

Claim 5

The rejection of base claim 1 is incorporated. Franz further teaches wherein the rule set

further comprises rules for type-checking types representing categories of types found

in a plurality of programming languages (see at least *310, 320* FIG.3 & associated text;

col.5:50-67).

Claim 6

Franz teaches a method of selectively retaining type information during compilation in a

code segment written in a programming language (see at least *410* FIG.4A &

associated text; FIG.3 & associated text), the method comprising:

translating the code segment from the programming language to one or more

representations of an intermediate language (see at least col.6:45-67; *330-350* FIG.3 &

associated text);

for each representation, determining whether to retain type information for one or more

elements of the representation; and based on the determination, associating one or

more elements of the representation with a type indicating the element can be of any

type (see at least col.6:45-67; *330-350* FIG.3 & associated text).

Claim 7

The rejection of base claim 6 is incorporated. Franz further teaches wherein the

determination is based on a current stage of compilation, a characteristic of each

representation, or the programming language (see at least *350* FIG.3 & associated

text).

Claim 8

The rejection of base claim 6 is incorporated. Claim recites limitations, which have been addressed in claims 2 and 4, therefore, is rejected for the same reasons as cited in claims 2 and 4.

Claim 9

The rejection of base claim 6 is incorporated. Franz further teaches wherein the type indicating the element can be of any type has size information associated with it (see at least *array, size* col.11:63-col.12:11).

Claim 10

The rejection of base claim 9 is incorporated. Franz further teaches generating code from at least elements associated with the type indicating the element can be of any type based on the size information (see at least *array, size* col.11:63-col.12:11).

Claim 11

The rejection of base claim 6 is incorporated. Claim recites limitations, which have been addressed in claim 2, therefore, is rejected for the same reasons as cited in claim 2.

Claim 12

Franz teaches a method of translating types associated with a plurality of programming

languages to types of an intermediate language (see at least *310-350* FIG.3 &.

associated text), the method comprising:

replacing the types associated with the plurality of programming languages with the

types of the intermediate language, wherein the types of the intermediate language

comprise general categories of the types associated with the plurality of programming

languages and an unknown type (see at least *310-350* FIG.3 & associated text; ·

col.6:48-67; *710, 720, 730* FIG.7 & associated text; *820* FIG.8 & associated text; *type*

safe, type rules col.1:45-2:3; *unsafe intermediate code* col.2:29-55; col.5:50-67; *array,*

size col.11:63-col.12:11).

Claim 13

The rejection of base claim 12 is incorporated. Franz further teaches wherein the types

of the intermediate language further comprise types related to programming language

specific primitive types (see at least col.13:10-23; *730* FIG.7 & associated text).

Claims 14-27

Claims recite limitations, which have been addressed in claims 1-7, 9 and 10, therefore,

are rejected for the same reasons as cited in claims 1-7, 9 and 10.

Claim 28

Franz teaches a computer-readable medium containing computer-executable

instructions for implementing the method of claim 24 (see at least *computer-usalbe*

medium, ROM 209, storage device 210 col.4:10-67).

Claim 29

Franz teaches a computer-readable medium containing computer-executable

instructions for implementing the method of claim 1 (see at least *computer-usalbe*

medium, ROM 209, storage device 210 col.4:10-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chrystine Pham whose telephone number is 571-272-

3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CP
October 11, 2006

TUAN DAM
SUPERVISORY PATENT EXAMINER